UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,535	01/18/2001	Daniel S. Kwoh	41592/WWM/K296	1407

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EXAMINER
KALINOWSKI, ALEXANDER G

ART UNIT	PAPER NUMBER
3626	

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/765,535	KWOH, DANIEL S.
	Examiner	Art Unit	
	Alexander Kalinowski	3626	NW

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 June 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-20 are presented for examination. Applicant filed an amendment on

6/30/04 amending claims 1-13 and 15-20.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 and 17-20 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the

technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural

phenomena) that do not apply, involve, use, or advance the technological arts fail to

promote the "progress of science and the useful arts" (i.e., the physical sciences as

opposed to social sciences, for example) and therefore are found to be non-statutory

subject matter. For a process claim to pass muster, the recited process must somehow

apply, involve, use, or advance the technological arts.

In the present case, the instant claims fail to recite the use of any type of

technology (e.g. computer system) within the recited steps of the claimed method of

calculating travel costs for a user. The recited steps constitute an idea on how to

calculate travel costs including discounted fares.

Mere intended or nominal use of a component, albeit within the technological

arts, does not confer statutory subject matter to an otherwise abstract idea if the

component does not apply, involve, use, or advance the underlying process.

Additionally, for a claimed invention to be statutory, the claimed invention must

produce a useful, concrete, and tangible result. In the present case the claimed method

recites steps for calculating travel costs.

Although the claimed invention produces a useful, concrete and tangible result, since

the claimed invention as a whole is not within the technological arts, as explained

above, claims 1-13 and 17-20 are deemed to be directed to non statutory subject

matter.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-10 and 12-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Iyengar et al., Pat. No. 6,360,205 (hereinafter Iyengar) in view of Jafri

et al., Pat no. 5,832,454 (hereinafter Jafri).

As to claim 1. Iyengar discloses An electronic method for calculating travel costs

for a user (see abstract) comprising:

an information request step, wherein the user is prompted to enter desired travel

product information for a plurality of travel products (see Fig. 7, Fig. 8, Fig. 23 and Fig.

24);

an information receipt step, wherein the desired travel product information is received

from a user (Fig. 7, Fig. 8, Fig. 23 and Fig. 24);

a calculation step, wherein the received information is used to search and to determine

the cost of the desired travel products (col. 9, lines 36-44); and

a reporting step, wherein the cost of each travel product is reported to the user (Fig. 24);

a prompting step wherein the user is prompted to request alternative travel product

information (i.e. perform another search)(Fig. 10); and

an alternative travel request receipt step wherein a user request to receive alternative

travel product information is received (Fig. 10).

a second calculating step wherein a discount information is accessed to determine

alternative travel products to offer the user (Fig. 10, (col. 9, lines 36-44)); and

an alternative travel reporting step wherein alternative travel products are reported to

the user (col. 11, lines 27-34).

Iyengar does not disclose

calculating travel costs using received information from databases.

However, Jafri discloses calculating travel costs using received information from

databases (col. 3, lines 44-52). It would have been obvious to one of ordinary skill in the

art at the time of Applicant's invention to include calculating travel costs using received

information from databases as disclosed by Jafri within Iyengar for the motivation of

providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 2, Iyengar discloses An electronic method for calculating travel costs of claim 1 wherein the reporting step and the alternative travel reporting steps comprise displaying a range of prices for each travel product based upon availability of products from different product providers; and displaying a total price range for all of the requested travel products (Fig. 10).

As to claim 3. Iyengar discloses An electronic method for calculating travel costs of claim 2 wherein the information request step further comprises prompting a user to select an airline departure date, a departure location, a destination location (see Fig. 8).

As to claim 4, Iyengar does not explicitly disclose An electronic method for calculating travel costs of claim 3 wherein the information request step further comprises prompting a user to select a hotel location and a number of nights to reside at the hotel.
However, Jafri discloses wherein the information request step further comprises prompting a user to select a hotel location and a number of nights to reside at the hotel (col. 2, lines 55-60 and line 66 – col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein the information request step further comprises prompting a user to select a hotel location and a number of nights to reside at the hotel as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 5, Iyengar does not explicitly disclose An electronic method for calculating travel costs of claim 4 wherein the information request step further

comprises prompting a user to select a rental car location and a number of days a rental car will be rented.

However, Jafri discloses wherein the information request step further comprises prompting a user to select a rental car location and a number of days a rental car will be rented (col. 2, lines 55-60 and line 66 – col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein the information request step further comprises prompting a user to select a rental car location and a number of days a rental car will be rented as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 6, Iyengar dies not explicitly disclose An electronic method for calculating travel costs of claim 5 wherein as part of the calculation step, the received duration of time between the airplane departure date and the airplane return date is used to determine the number of nights to reside at the hotel and the number of days a rental car will be rented.

However, Jafri discloses wherein as part of the calculation step, the received duration of time between the airplane departure date and the airplane return date is used to determine the number of nights to reside at the hotel and the number of days a rental car will be rented (col. 2, lines 55-60 and line 66 – col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein as part of the calculation step, the received duration of time between the airplane departure date and the airplane return date is used to determine the number of nights to reside at the hotel and the number of days a rental car will be rented as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 7, Iyengar does not explicitly disclose An electronic method for calculating travel costs of claim 6 wherein as part of the calculation step, the airplane destination city is used to determine the hotel location and the rental car location.

However, Jafri discloses wherein as part of the calculation step, the airplane destination city is used to determine the hotel location and the rental car location (col. 2, lines 55-60 and line 66 – col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein as part of the calculation step, the airplane destination city is used to determine the hotel location and the rental car location as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 8, Iyengar discloses An electronic method for calculating travel costs of claim 5 wherein alternative travel products are found by altering at least one of the group consisting of the departure flight city, the departure flight date, the destination city, the return flight date, the number of nights of hotel rental, the type of hotel rented, the number of days of car rental, and the type of car rented to conform to the requirements of at least one discount in the discount database (see Fig. 10).

As to claim 9, Iyengar discloses an electronic method for calculating travel costs of claim 8 further comprising a prompting step wherein a user is prompted to purchase travel products (Fig. 10).

As to claim 10, Iyengar discloses An electronic method for calculating travel costs of claim 9 further comprising:
a personal information prompting step wherein the user is prompted to enter personal information (Fig. 5, Fig. 6);

a personal information receiving step wherein personal information is received from a

user (Fig. 5, Fig. 6);

a payment information prompting step wherein the user is prompted to enter payment

information (col. 8, lines 9-24);

a payment information receiving step wherein payment information is received from a

user (col. 8, lines 9-24); and

a reservation step wherein travel product providers of the purchased products are

contacted, reservations are made, and travel products purchased (col. 8, lines 9-24).

As to claim 12-20, the claims are substantially similar in scope to claims 1-10 and

are rejected on the same basis.

5.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar

and Jafri as applied to claim 10 above, and further in view of Delorme et al., Pat. No.

5,948,040 (hereinafter DeLorme).

As to claim 11,   Iyengar and Jafri do not explicitly disclose An electronic method

for calculating travel costs of claim 10 wherein the information request step further

comprises prompting a user to select at least one of the group consisting of a cruise

departure date, a cruise departure location, a cruise destination location, a cruise return

date, a cruise provider, a cruise ship, a cruise name, and a cruise passenger class.

However, DeLorme discloses wherein the information request step further

comprises prompting a user to select at least one of the group consisting of a cruise

departure date, a cruise departure location, a cruise destination location, a cruise return

date, a cruise provider, a cruise ship, a cruise name, and a cruise passenger class (see

Fig. 6 and col. 52, lines 23-42). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein the information request step further comprises prompting a user to select at least one of the group consisting of a cruise departure date, a cruise departure location, a cruise destination location, a cruise return date, a cruise provider, a cruise ship, a cruise name, and a cruise passenger class disclosed by DeLorme within Iyengar and Jafri for the motivation of providing a system with complete integration of travel/activity required by a user (col. 6, lines 47-54).

Response to Arguments

6.   Applicant's arguments filed 6/30/04 have been fully considered but they are not persuasive. Applicant argues that the Iyengar reference does not disclose a system or method that calculates the cost of desired travel products. The Examiner disagrees. Iyengar, as admitted by Applicant, is directed to a system that books reservations for travel products including airline flights, hotels and car rental. Applicant specifically argued that Iyengar fails to disclose the claimed limitations since Iyengar discloses searching for other travel products such as hotel and car rental are done separately and independent from searches and calculations for airline flights or each. However, the Examiner notes that nowhere in the claimed invention is there a requirement that searches for travel products be done any differently than as disclosed in Iyengar. Again as admitted by Applicant, Iyengar discloses steps for searching and calculating the cost of multiple travel products (col. 6, lines 20-23). Moreover, the claims fail to recite language that would require searches for the travel products to be conducted at the same time using the same information. Examiner notes that independent claims 12 and

16 were amended to include a recitation to a plurality of travel products. However, this amendment does not overcome the disclosure of Iyengar and Jafri for the reasons stated above. Therefore, Applicant's arguments directed to the Iyengar reference are non persuasive.

7.   Applicant's attempt to amend the claims by adding a recitation to the preamble of the claims that the claimed method is performed by a computer does not overcome the rejection of the claims based on 35 USC 101. in order to overcome the rejection of the claims based on 35 USC 101, language indicating that at least some of the steps of the method are carried out by the use of technology must be incorporated within the body of the claims. Therefore, Applicant's arguments directed to the rejection of claims based on 35 USC 101 is non persuasive.

Regarding the requirement under 35 U.S.C. § 101 that a claimed invention be limited to the technological arts in order to be deemed statutory and in response to Appellant's arguments, the Examiner submits that the phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts." See In re Musgrave, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts."

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature," "natural phenomena," and "abstract ideas." See Diamond v. Diehr, 450, U.S. 175, 185, 209

USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention

incorporates abstract ideas, such as mathematical algorithms, the invention may

nevertheless be statutory subject matter if the invention as a whole produces a "useful,

concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial

Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). This

addresses the second test under 35 U.S.C § 101 of whether or not an invention is

eligible for a patent. The Manual of Patent Examining Procedure reiterates this point.

More specifically, MPEP § 2106(II)(A) states, "The claimed invention as a whole must

accomplish a practical application. That is, it must produce a 'useful, concrete and

tangible result.' *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02." Furthermore,

"Only when the claim is devoid of any limitation to a practical application in the

technological arts should it be rejected under 35 U.S.C. 101." (MPEP § 2106(II)(A))

This "two prong" test was evident when the Court of Customs and Patent

Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences

(BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held

that the recited mathematical algorithm did not render the claim as a whole non-

statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson,* 409

U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the

issue of the "technological arts." The court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must focus
> on whether the claimed subject matter...is statutory, not on
> whether the product of the claimed subject matter...is
> statutory, not on whether the prior art which the claimed
> subject matter purports to replace...is statutory, and not on
> whether the claimed subject matter is presently perceived to

> be an improvement over the prior art, e.g., whether it
> "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source

human language (e.g., Russian) into a target human language (e.g., English). The

court found that the claimed computer implemented process was within the

"technological art" because the claimed invention was an operation being performed by

a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*

never addressed this prong of the test. In *State Street Bank & Trust Co.,* the court

found that the "mathematical exception" using the Freeman-Walter-Abele test has little,

if any, application to determining the presence of statutory subject matter but rather,

statutory subject matter should be based on whether the operation produces a "useful,

concrete and tangible result." See *State Street Bank & Trust Co.* at 1374. Furthermore,

the court found that there was no "business method exception" since the court decisions

that purported to create such exceptions were based on novelty or lack of enablement

issues and not on statutory grounds. Therefore, the court held that "[w]hether the

patent's claims are too broad to be patentable is not to be judged under §101, but rather

under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these

analyses go towards whether the claimed invention is non-statutory because of the

presence of an abstract idea. *State Street* never addressed the first part of the analysis,

i.e., the "technological arts" test established in *Toma* because the invention in *State*

Street (i.e., a computerized system for determining the year-end income, expense, and

capital gain or loss for the portfolio) *was already determined to be within the*

technological arts under the *Toma* test. This dichotomy has been recently

acknowledged by the Board of Patent Appeals and Interferences in affirming a §101

rejection finding the claimed invention to be non-statutory for failing the technological

arts test. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

What is indeed important to note in the *Bowman* decision is that the Board

acknowledged the dichotomy of the analysis of the claims under 35 U.S.C. § 101,

thereby emphasizing the fact that not only must the claimed invention produce a "useful,

concrete and tangible result," *but that it must also be limited to the technological*

arts in order to be deemed statutory under the guidelines of 35 U.S.C. § 101. The

Board very explicitly set forth this point:

> [1] We agree with the examiner. Appellant has carefully
> avoided tying the disclosed and claimed invention to any
> technological art or environment. As noted by the examiner,
> the disclosed and claimed invention is directed to nothing
> more than a human making mental computations and
> manually plotting the results on a paper chart [answer, page
> 5]. The Examination Guidelines for Computer-Related
> Inventions are not dispositive of this case because there is
> absolutely no indication on this record that the invention is
> connected to a computer in any manner.
>   Despite the express language of 35 U.S.C. §101,
> several judicially created exceptions have been excluded
> from subject matter covered by Section 101. These
> exceptions include laws of nature, natural phenomenon, and
> abstract ideas. See *Diamond v. Diehr*, 450 U.S. 175, 185,
> 209 USPQ 1, 7(1981). We interpret the examiner's rejection
> as finding that the claimed invention before us is nothing
> more than an abstract idea because it is not tied to any
> technological art or environment. Appellant's argument is
> that the physical (even manual) creation of a chart and the
> plotting of a point on this chart places the invention within the
> technological arts.

> The phrase "technological arts" has been created to offer another view of the term "useful arts." The Constitution of the United States authorizes and empowers the government to issue patents only for inventions which promote the progress [of science and] the useful arts. We find that the invention before us, as disclosed and claimed, does not promote the progress of science and the useful arts, and does not fall within the definition of technological arts. The abstract idea which forms the heart of the invention before us does not become a technological art merely by the recitation in the claim of "transforming physical media into a chart" [sic, drawing or creating a chart] and "physically plotting a point on said chart."
>
> In summary, we find that the invention before us is nothing more than an abstract idea which is not tied to any technological art, environment, or machine, and is not a useful art as contemplated by the Constitution of the United States. The physical aspects of claim 1, which are disclosed to be nothing more than a human manually drawing a chart and plotting points on this chart, do not automatically bring the claimed invention within the technological arts. For all these reasons just discussed, we sustain the examiner's rejection of the appealed claims under 35 U.S.C. §101. *See Ex parte Bowman*, 61 USPQ2d (BNA) 1669, 1671 (BdPatApp&Int 2001)

Similarly, in the present application, claims 1-13, and 17-20 are deemed to be non-statutory because they are not limited to the technological arts; all recited steps could be performed manually by a human, thereby reinforcing the fact that Applicant's invention fails to "[p]romote the progress of science and useful arts," as intended by the United States Constitution under Art. I, §8, cl. 8 regarding patent protection.

In conclusion, the Examiner submits that Applicant's claims do not meet the technological arts requirement under 35 U.S.C. § 101, as articulated in *Musgrave, Toma,* and *Bowman* as well as the Manual of Patent Examining Procedure.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
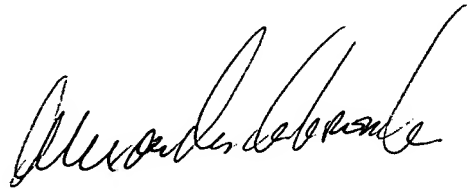
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alexander Kalinowski, whose telephone number is (703)

305-2398. The examiner can normally be reached on Monday to Thursday from 9:00

AM to 6:30 PM. In addition, the examiner can be reached on alternate Fridays.

If any attempt to reached the examiner by telephone is unsuccessful, the

examiner's supervisor, Joseph Thomas, can be reached on (703) 305-9588. The fax

telephone number for this group is (703) 305-7687 (for official communications including

After Final communications labeled "Box AF").

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal

Drive, Arlington, VA, 7th Floor, receptionist.

Alexander Kalinowski

Primary Examiner

Art Unit 3626

10/7/04